Message

From: d'Almeida, Carolyn K. [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9EC4401AFA1846DD93D52A0DDA973581-CDALMEID]

Sent: 6/14/2017 7:22:05 PM

To: Bo [bo@praxis-enviro.com]; Dan Pope [DPope@css-inc.com]; Cosler, Doug [Doug.Cosler@TechLawInc.com];

Jennings, Eleanor [Eleanor.Jennings@parsons.com]; Steve Willis [steve@uxopro.com]; Davis, Eva [Davis.Eva@epa.gov]; Brasaemle, Karla [Karla.Brasaemle@TechLawInc.com]; Wayne Miller

[Miller.Wayne@azdeq.gov]

Subject: RE: Suggested text for Checklist, Version 9

Line 26

Modeling to date by the AF has not been sufficiently documented to allow an independent check on the results. The Regulatory Agencies technical team has sent a list of these deficiencies to AF.

The word deficiency might also create negative reaction. Rathe,r reference previous comments and specify what the modeling effort need to address.

Carolyn d'Almeida Remedial Project Manager Federal Facilites Branch (SFD 8-1) US EPA Region 9 (415) 972-3150

"Because a waste is a terrible thing to mind..."

From: d'Almeida, Carolyn K.

Sent: Wednesday, June 14, 2017 12:02 PM

To: 'Bo' <bo@praxis-enviro.com>; Dan Pope <DPope@css-inc.com>; Cosler, Doug <Doug.Cosler@TechLawInc.com>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Steve Willis <steve@uxopro.com>; Davis, Eva

<Davis.Eva@epa.gov>; Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>; Wayne Miller

<Miller.Wayne@azdeq.gov>

Subject: RE: Suggested text for Checklist, Version 9

Or maybe just say: "Please update the model to incorporate....." and reference Bos memo. And don't discuss what they previously did or didn't do.

On Jun 14, 2017, at 10:01 AM, d'Almeida, Carolyn K. <dAlmeida, Carolyn@epa.gov> wrote:

Don't think its helpful to say things in writing we don't actually believe, that can be later turned against us. More succinct is better. E.g. "the modeling effort did not account for......"

Carolyn d'Almeida Remedial Project Manager Federal Facilites Branch (SFD 8-1) US EPA Region 9 (415) 972-3150

"Because a waste is a terrible thing to mind..."

From: Dan Pope [mailto:DPope@css-inc.com]
Sent: Wednesday, June 14, 2017 8:37 AM

To: Cosler, Doug < Doug. Cosler@TechLawlnc.com>; 'Jennings, Eleanor'

<<u>Eleanor Jennings@parsons.com</u>>; Bo <bo@praxis-enviro.com>; d'Almeida, Carolyn K.

<dAlmeida.Carolyn@epa.gov>; Steve Willis <steve@uxopro.com>

Cc: Davis, Eva <<u>Davis.Eva@epa.gov</u>>; Brasaemle, Karla <<u>Karla.Brasaemle@TechLawInc.com</u>>; Wayne

Miller < Miller. Wayne@azdeq.gov>

Subject: Suggested text for Checklist, Version 9

This suggested text is long... maybe needs to be tightened up a bit.

The EBR modeling efforts conducted by the AF, while perhaps useful from an operational standpoint, do not provide a sufficiently extensive and detailed evaluation of important factors determining the efficacy and rate of COC biodegradation, and depletion of COCs from the LNAPL source materials. For instance, the AF EBR modeling efforts assume instantaneous mass transfer of COCs from the LNAPL to groundwater, which likely significantly over-estimates actual rates of transfer of COCs, therefore leading to over-estimates of rates of COC depletion from the LNAPL. In addition, the AF EBR modeling efforts assumed site-wide uniformity of critical parameters (such as porosity). AF did not provide sensitivity analyses for evaluating the effect of these assumptions on remedial efficacy and timeframe scenarios. Therefore, the Regulatory Team has performed a detailed and extensive analysis and modeling effort to better capture the variability of physical, chemical and biological conditions across the site, and to show the range and likelihood of possible remedial efficacy and timeframe outcomes of ERB and MNA [ST12 Joint agency EBR model cover letter.pdf; TOR Estimates_ST012_052217.pdf; BIONAPL Box Model revised 04-27-2017 UWBZ.xls].

"while perhaps useful from an operational standpoint"

I included this text to soften the statements relative to the AF modeling efforts, and to refer to AMEC's contention that their model is good for adjusting the operation of the EBR system. This statement may not be needed.

From: Cosler, Doug [mailto:Doug.Cosler@TechLawInc.com]

Sent: Wednesday, June 14, 2017 10:29 AM

To: 'Jennings, Eleanor'; Dan Pope; Bo; d'Almeida, Carolyn K.; Steve Willis

Cc: Davis, Eva; Brasaemle, Karla; Wayne Miller

Subject: RE: Checklist, Version 9

I'll add what I can starting at noon today (should take less than an hour), and then send back out for others.

Doug

From: Jennings, Eleanor [mailto:Eleanor.Jennings@parsons.com]

Sent: Wednesday, June 14, 2017 11:03 AM

To: Dan Pope < <u>DPope@css-inc.com</u>>; Bo < <u>bo@praxis-enviro.com</u>>; d'Almeida, Carolyn K.

<dAlmeida.Carolyn@epa.gov>; Steve Willis <steve@uxopro.com>

Cc: Davis, Eva <<u>Davis.Eva@epa.gov</u>>; Brasaemle, Karla <<u>Karla.Brasaemle@TechLawInc.com</u>>; Cosler,

Doug Doug.Cosler@TechLawInc.com>; Wayne Miller.Wayne@azdeq.gov>

Subject: Checklist, Version 9

I have integrated the comments from yesterday's conference call.

Items highlighted in bright yellow are those where we're just trying to resolve the final verbiage.

A sincere thank-you to all, for your thoughts, suggestions, inputs, efforts (especially those on the modeling sections and associated figures, Bo and Doug!), and assistance. What we have not only clearly outlines a valid workplan and our expectations to the USAF, but it also is a tool for us to use when monitoring progress. MANY thanks again,

-Eleanor

Eleanor M. Jennings, M.S., PhD

Principal Scientist - Environmental Microbiology and Biogeochemistry Eleanor Jennings @ Parsons.com 202.302.9996

"Safety Isn't Expensive. It's Priceless."